

Type No. 9316 Collection of the Wagner Free Institute of Science. This species belongs to the typical *cereolus* section, but has the size and form of *P. nullifera*. Dr. Dall records *P. cereolus microdonta* from the Caloosahatchie beds (Trans. Wagner Free Inst. iii, pt. 1, p. 19), but this species cannot be confounded with that.

VIVIPAROUS MIOCENE TURRITELLIDÆ.

BY FRANK BURNS.

I have lately made one of the most interesting discoveries that I have met with in all my work in the Southern Tertiary, and send you below the facts for publication.

I lately went to Plum Point, a classical spot in Maryland, to try to get a fair representation of the fauna there, as the beds and shells are so friable that it has been heretofore almost impossible to do so. I have a large amount of marl and many hundreds of the larger bivalves, collected to get the small things enclosed in the matrix between the valves, also in such gastropods as I could get out without breaking. In looking over some sand I came across a small fragment of *Turritella cumberlandia* Con., 21 mm. long and 11 mm. wide, and out of this I obtained over two hundred embryonic shells that were enclosed in the mother shell. Of all the great number of thousands of such shells that I have heretofore collected, I never saw anything like this, nor have I read of it.

These embryonic shells were never born, so to speak. Their mother died with them enclosed, and, as the animal decayed, the front of the aperture was closed with fine silt, leaving the embryonic shells intact, where they have remained for an immense period of time, as this is the lowest fossiliferous bed in the Miocene. These embryonic shells are about one millimetre in length and about as wide. I have heretofore collected very young *Turritellidæ* from fine sand where they had died, but never before saw one in the parent fossil. A fine point for investigation is whether the recent *Turritellidæ* are oviparous or viviparous. The literature that I have access to is a little hazy on the subject.

Since writing the above I have found another specimen in the same condition, but of a different species, *Turritella indenta* Con.; both from the same bed at Plum Point.

The last specimen was bored by a mollusk and, of course, died before spawning. As soon as I removed a small portion of sand the little fellows came pouring out by the hundred, so that I have duplicated the most interesting find of my life.

NEW SOUTHERN UNIOS.

BY BERLIN H. WRIGHT.

Unio unicostatus, sp. nov.

Shell thin, obovate, somewhat inflated, inequilateral. Smooth, with distant and inconspicuous growth lines; epidermis olivaceous with numerous, well separated, indistinct, broad green rays throughout the entire disk, but which are usually most distinct on the posterior half: dorsal margin short and straight, anterior margin very short and abruptly rounded, base sub-emarginate, posterior margin rounded and usually (in the male) biangulated; umbos prominent, beaks eroded, umbonal angle obsolete; posterior area with a single little rib extending from beak to the superior posterior margin; beak cavities well defined; dorsal cicatrices deep and close up under the beaks, anterior cicatrices distinct; posterior ones confluent and all smooth; lateral teeth slender, straight and prominent; cardinals lamellate, oblique and prominent; nacre pale flesh color, pink or red. Width $1\frac{2}{3}$, length 1, diameter $\frac{5}{8}$ inches.

Habitat: Spring Creek, Decatur Co., Ga.

Type in National Museum.

Remarks: Affinity, *U. lienosus*. A large lot of these shells has been in hand for two years—and some have been distributed to contributors to the collecting fund under the name of *U. nigrinus* Lea, and *U. lienosus* Con. var. Its outline is much more obovate than either species and it is smaller and thinner than the latter. The female shells of *unicostatus* show a still further departure from both of the above-named species in developing a far greater degree of expansion on the base. The little rib on the posterior area is also a distinguishing feature, though it is sometimes nearly obsolete. Its epidermis is never black like that of *U. nigrinus*.